

## SOME NOTES ON COODE ISLAND AND ITS FLORA.

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TOWARDS the end of the year 1908, and again in 1909, I made several visits to Coode Island, and collected a number of specimens of plants, several of which, on examination, proved to be exotics, and had not been previously recorded for Victoria. I was accompanied on some of these trips by Mr. C. French, jun., Assistant Government Entomologist, who had informed me that, whilst roaming over the island in search of entomological specimens, he had noticed a number of plants growing there which he thought might be worthy of further investigation.

Before enumerating the different species noted, it may be of interest to give a short history of Coode Island, which was originally a portion of that low-lying, sandy tract along the south bank of the Yarra, towards its mouth, known as Fishermen's or Sandridge Bend. In 1886, by the cutting of a ship-canal from one portion of the Yarra to another (by which the distance by water from the city to the sea was lessened by nearly two miles), the area was bisected, the northern portion becoming a somewhat triangular-shaped island of about 240 acres in extent, and having that part of the old course of the Yarra, known as "Humbug Reach," for its northern and western boundaries. The canal, which is 100 yards wide, and of sufficient depth for vessels of about 10,000 tons, forms a considerable barrier to animal or vegetable life. The water was allowed to pass through the canal on the 11th of September, 1886.

Through the kindness of Mr. J. Saxton, of the Lands Department, in allowing me access to some survey maps of that part of the metropolis in which Coode Island is situated, I was able to glean some interesting information about the original condition of the area now forming the island, and of the adjacent land. A survey plan made about 1840 shows "Tea-tree scrub" on both banks of the river, and the major portion as "swamp land." At this time that part of the Yarra below its junction with the Saltwater River was known as "Hobson's River." In a later map (1841) the river now known as the Saltwater was given as the "Macedon River." The traffic along the road from Geelong to Melbourne at this time crossed the Macedon River (now Saltwater River) by means of a punt, about a quarter of a mile above its junction with the Yarra. A few years later a survey plan shows three formations—namely, tea-tree scrub, sandy waste, and a fringe of forest. The canal afterwards cut off the tree-clad portion.

The appearance of the island since its formation has undergone a complete change. The tea-tree scrub has disappeared, the swamp has been practically filled up, and the greater part covered by members of the Ficoideæ (*Mesembryanthemum*, &c.), whilst another area is laid down in grass. The island is chiefly used as a quarantine station for stock: but several buildings have been erected there, which, however, are not very artistic, having been constructed mainly of galvanized iron. These buildings are intended to be used as a sanatorium for bubonic plague patients when necessity arises. This fact might deter members of the Club from paying a visit to the island. Nevertheless, a trip to the locality would well repay the trouble taken, not only to the botanist, but also to the entomologist, and probably to the conchologist and geologist as well.

The numerous salt-marshes are swarming with pond-life, and are worthy of a thorough search by those of our members who are interested in the study of that department of science. Mr. French, jun., informs me that he collected here some specimens of mosquito larvæ (millions of which are to be found in these salt-marshes), which he reared, and forwarded to Dr. L. O. Howard, Chief Entomologist of the United States of America, for naming. These were described as a new species, under the name of *Culex labeculosus*, the Salt-marsh Mosquito.

I am also indebted to Mr. French, jun., for the following entomological notes:—An interesting scale insect was found on the *Salicornia*, which also proved new to science, and has been named by Mr. E. E. Green, of Ceylon, *Pulvinaria salicornæ*, the *Salicornia* Scale. On the Coast Acacia, *Acacia longifolia*, the common black flat scale, *Aspidiotus rossi*, is very plentiful, and on the Black Wattle the wattle scales, *Prosopora acaciæ* and *Lecanium baccatum*, are fairly numerous. In and on the dead acacias the following longicorn beetles were found:—*Hebecerus marginicollis* and *H. australis*, *Adrium artifiæ*, *Pempsamacra pygmæa* and *P. dispersa*, *Pachydissus sericeus*, and several other small species of longicorns, also the common Wattle Goat Moth, *Zeuzera eucalypti*.

In the south-west corner adjoining the canal the land is somewhat higher than the surrounding portion. This is apparently caused by the deposition of ships' ballast, which has evidently been brought from other countries—certainly, to some extent, from South Africa, for many of the exotic plants found on this portion of the island were natives of that part of the world. This gives an idea of the way in which some of our alien plants may have reached our shores.

The portion of land before mentioned is about 250 or 300 yards long and approximately 30 yards broad at its northern end, becoming narrower towards the south. This was covered

with a mass of foreign vegetation, thus giving it a unique appearance.

Two introduced members of the Cruciferæ found growing there are worthy of mention—*Brassica campestris*, L., the Rape or Wild Turnip, and *Diplotaxis tenuifolia*, D. C., Sand Mustard or Rocket. The latter is a native of Europe. This was the second locality recorded in this State for the Sand Mustard. Some of the roots of *D. tenuifolia* were found to have penetrated the loose ballast to a depth of at least three feet.

Among the Compositæ may be mentioned *Ursinia chrysanthemoides*, Harv., a native of South Africa, which is only known in this State from this locality. It was growing in great profusion, and when seen from a distance whilst in flower it reminded one of a field covered with Cape-weed, *Cryptostemma calendulaceum*. It has somewhat the habit and appearance of some of the chrysanthemums, and hence arises the specific name. I brought away some of the young plants of the *Ursinia*, and planted them in my garden; but they seeded so freely and spread so rapidly that I had to pull them up, or they would have taken possession of the garden.

Another immigrant from South Africa, *Dimorphotheca pluvialis*, Moench., like the preceding one known only from Coode Island, was fairly plentiful, as was likewise *Matricaria globifera*, Fenzl., the Globe Chamomile. This South African composite has since been found near Geelong, and is therefore apparently establishing itself as a naturalized alien around Port Phillip. Another South African plant, *Berkheya (Stobæa) rigida*, Thunb., African Thistle, noted from this locality, like the preceding one, has since been received from Geelong district, and is now classed as a naturalized alien in this State (see "Weeds, Poison Plants, and Naturalized Aliens of Victoria," page 73). Two other composites—*Matricaria inodora*, L., Scentless Chamomile, and *Senecio nebrodensis*, L., var. *glabratus*, D. C., natives of Europe and Asia—were also noted for the first time in Victoria.

Three members of the Ficoideæ indigenous to South Africa were noted—*Tetragona fruticosa*, L., *Tetragona decumbens*, Mill., and *Mesembryanthemum angulatum*, Thunb. These covered the ground in a thick mass, the branching stems trailing out in all directions. A member of the Zygophylleæ endemic to South Africa was *Zygophyllum sessifolium*, L. This plant, with its yellow flowers, looked rather pretty, and I took some of the young plants to grow them in my garden; but, like the *Ursinia*, I had to pull it up, for it soon began to spread all over the garden, and, as it seeded freely, it would probably have eventually spread outside if unchecked.

One of the Rock Roses, *Cistus salvifolius*, L., a stranger

from the Mediterranean region, was also growing on the island, which is, up to the present, its only known locality in Victoria.

The following plants, which are recognized as naturalized aliens in other parts of Victoria, were also found growing profusely.—The Sun Spurge, *Euphorbia helioscopia*, L., the Petty Spurge, *Euphorbia peplus*, L.—both are introductions from Europe, and are weeds of waste places; the Bermuda Pig-root, *Sisyrinchium Bermudiana*, L., a native of America—a weed injurious to stock if eaten in quantity; the Weld or Wild Mignonette, *Reseda luteola*, L., a dye plant, but a weed when wild; the Salsify, *Tragopogon porrifolius*, L., a native of Europe, Asia, and Africa—a weed when wild; and the Stinking May Weed, *Anthemis cotula*, L., a noxious weed.

The following plants, proclaimed thistles under the *Thistle Act* for the whole State, were found to be flourishing there:—The Shore Thistle, *Carduus pycnocephalus*, L., *Carduus* (*Silybum*) *Marianus*, L., Spotted Thistle—both are sometimes considered to be useful fodder plants in some districts, but their evil effects far outweigh their usefulness; the Spear Thistle, *Carduus lanceolatus*, L.—this species is sometimes wrongly called “Scotch Thistle,” the true Scotch Thistle being *Onopordon acanthium*, L., which has not as yet made its appearance on the island; the Malta Thistle, *Centaurea melitensis*, L., one of the Star Thistles; and the Bind-weed, *Convolvulus arvensis*, L. The last-named plant is a perennial, with annual twining stems. It is a troublesome weed in cultivated ground, gardens, and crops; its seeds are poisonous.

Among the introduced grasses noted the following may be mentioned:—*Bromus mollis*, Soft Brome Grass, and *Bromus maximus*, L., Great Brome Grass—both have slight fodder value when young; *Phalaris canariensis*, L., Canary Grass, which also has slight fodder value, but cage-birds are very fond of its seed; *Dactylis glomerata*, L., Cocksfoot Grass, a native of Europe, Asia, and Africa, and one of our best introduced pasture grasses; and *Setaria nigrirostris*, Durand and Schinz., Black-beaked Setaria, a native of Africa, a useful perennial pasture grass, especially on poor sandy or calcareous soils. The foregoing grasses are all recognized naturalized aliens in other localities in Victoria.

Of the native plants noted the following are worthy of mention:—*Acacia longifolia*, Willd., Coast Acacia; *Muehlenbeckia adpressa*, Meiss., Climbing Lignum; *Vittadinia australis*, A. Rich., the New Holland Daisy; *Frankenia pauciflora*, D. C., the Smooth Sea-heath; *Suaeda maritima*, L., The Sea-blite; *Myoporum viscosum*, R. Br., and both the Angular and Rounded Pigfaces, *Mesembryanthemum equilaterale*, Harv., and *M.*

*australe*, Soland. These last-named plants had evidently been planted. The native plants were found scattered over the island.

The Small Pigface, *Mesembryanthemum tegens*, F. v. M., was also growing on the island, but it was observed to be more abundant on the area on the northern side of the Yarra, known as the West Melbourne Swamp. This plant was for some reason omitted by Baron von Mueller from the "Key to Victorian Plants," published in 1885, though known many years before. However, Professor Ewart referred it to the Kew Herbarium in 1908, and had it returned as a good species not known from anywhere else.

A full list of the new introductions mentioned herein is given in Professor Ewart's "Contributions to the Flora of Australia," No. 11, in the *Proceedings of the Royal Society of Victoria*, vol. xxii. (1910), p. 6. Probably later investigations will reveal still further additions to the introduced flora of the State.

In placing these few brief notes before the members of the Club, I have endeavoured to show that the botany, as also the entomology and pond-life, are both varied and interesting, and I would suggest that a Club excursion be arranged to visit this locality, when I have no doubt members will find much to attract their attention.

In conclusion, I desire to express my thanks to Mr. C. French, jun., for his interesting entomological notes, to Mr. Saxton, of the Lands Department, for the trouble he took in searching for the early survey maps, &c., and to Mr. Geo. Kermode, M.C.E., of the Public Works Department, who kindly obtained for me some records relating to the construction of the Coode Canal.

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#### BOOK NOTICES.

THE BIRDS OF AUSTRALIA. By A. H. S. Lucas, M.A., B.Sc., and W. H. D. Le Souëf, C.M.Z.S., M.B.O.U. 498 + xii. pp. (8½ x 5½), with 6 coloured plates and about 200 illustrations. Melbourne: Whitcombe and Tombs Limited. 21s.

THIS handsome book has been issued as a companion volume to the same authors' "Animals of Australia," noticed in these columns nearly two years ago, and fully maintains the high character of that work. The volume has been written more for the naturalist than for the general reader; but, as it is so fully illustrated, the latter cannot help being interested. There is hardly a page without an illustration of some kind—either a bird (from life or from a museum specimen), a nest, or a full-page scene showing the birds in their natural habitat. The coloured